

A Comparative study on Children of Working and Non-Working Women revealed by their Physical Growth, Academic Performance and Psychosocial Behaviour

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Abstract

Objectives: To study the effect of employment of mothers (lack of time spent by mothers in childcare) on physical growth, academic performance and psychosocial behaviour of children of working women and its comparison with children of non working women.

Material and methods: A cross sectional study on 200 primary school going children aged 6 to 14 years. 100 children each of working and non working mothers were selected using multistage random sampling (20 children per school) from five purposively selected primary schools of Indore city. Assessment of physical growth was done by anthropometric measurements (weight and height). Academic performance and psychosocial behaviour was assessed by interview of their mothers with the help of a pretested semi structured questionnaire. The data obtained was entered in to excel sheets and analysed using SPSS version 20. Chi square test was applied and $p < 0.05$ was considered significant.

Results: All selected children were from upper socioeconomic status families. 80% of the working women had less than 2 hrs with their children for recreation compared to 60% non-working women ($P < 0.05$). 80% children of working women and 82% children of non working women had weight and height above the required minimum for their age ($p > 0.05$). 96% and 93% children of working and non working women respectively, were average and above in their academics ($p > 0.05$). 50% of working women told that their children become aggressive and irritable and 40% complained of their children being less active/ depressed more than 5-6 times a week compared to nil cases of depression and only 10 % cases of aggressive behaviour in children of non working mothers.

Conclusion: Working women spent less time with their children that lead to abnormal psychosocial behaviour. There was significant difference in Academic Performance but no significant difference in Physical growth of children among the two groups.

Key words: behaviour, depression, growth, performance.

Introduction:

The increase in female labour force participation and, the dual role of women, both as income earners and child care providers, has emerged as an important issue of concern amongst sociologists, anthropologists and Demographers¹. Studies in developing countries have found that working women spend less time on childcare as compared to non-working women and the relationship between mother's work participation and time spent on childcare appears to be ambiguous in developing countries¹.

Today working women are at ease as they are enjoying financial security and mental satisfaction. But, while women have to work, it is becoming rather difficult to get good substitutes for child rearing. Poor child rearing has been associated with poor child development. Working women may not be able to spend much time in playing with young children and this could adversely affect psychological development².

The effects of maternal employment on children are sometimes positive and sometimes negative. Many of the studies have compared the children of employed and unemployed mothers on child outcome measures such as indices of cognitive and socio-emotional development. Patterns that have been revealed over the years include the following:

- Children of employed mothers have been found to have higher academic achievement, greater career success, more non-traditional career choices, and greater occupational commitment.
- A few earlier studies found that sons of

employed mothers in the middle class showed lower school performance and lower I.Q. scores during the grade school years than full-time homemakers.

- Daughters of employed mothers have been found to be more independent, less shy, and had a higher sense of efficacy.
- Sons and daughters of employed mothers have less traditional gender-role attitudes.

On the other hand, housewives can take care of their children much more efficiently, spend more time with them and look after them all the time. Children seek more warmth and emotional security when they grow under the guidance and care of their mothers as homemakers. If children get attention when they are young, they are able to cope better as teenagers. But this again has certain pros and cons. Some studies have indeed shown that children of housewives are more dependent, shy and less efficient in some spheres of life as compared to the children of working women.

In short, it can be said that, it is possible to be a woman, a mother, and an achiever. Many have done it with help from society, and others have battled endless odds to prove the same. In today's world it is both desirable and incumbent upon mothers to be working, like their spouses.

Through the medium of our observational study, we strive to compare the children of employed and non-employed mothers on child outcome measures, such as indices of cognitive and socio-emotional development. The objective of our study was to assess the effects of employment of mothers (lack of time spent by mothers in childcare) on physical growth, academic performance and psychosocial behaviour of children of

working women and its comparison with children of non working women.

Material and methods:

This was a cross sectional study done on 200 children of five private primary schools located in Indore city in year 2012. The sample size was calculated taking 95% confidence level and 10% confidence error and sample proportion (P) 0.5 (50%) for indefinite population using formula $n = \frac{z^2 pq}{c^2}$ which came out to be 96, rounded to 100 for each group. The study subjects were selected using multistage random sampling methods (figure 1)

A pre tested semi structured questionnaire was used to interview the mothers regarding their daily activities concerned to child care. They were also interviewed regarding psychosocial behaviour using a child behaviour checklist derived from Achenbach, T. (1992) and items were summed to create subscales of Aggression, Anxiety/Depression⁴. Weight and height for age was recorded by weighing machine and height scale in the school and was compared against NCHS reference values of weight and height for age from birth to 18 years⁵.

The academic performance was assessed by child performance in the previous class available in record. The tendency to fall ill was assessed by counting the number of days of absence from the school with a sickness application. Data was entered into excel spread sheets and was analysed using SPSS software version 20. Chi square test was used where ever required and $p < 0.05$ was considered statistically significant.

Results and Discussion:

Among the 200 primary school students included in our study 120 were boys and rest 80 were girls. All were from non government schools and belong to upper socioeconomic status families. Among 100 working mothers, 30% had professional degrees, 60% were graduate and above and rest 10% were higher secondary passed. The spouse/ husbands of 92% working mothers were working. Only 38% of them were working in govt. job and the rest were in private sector. While in case of non working mothers only 3% had professional qualification, 67 % were graduate and above, and the remaining were below higher secondary. All 100% husbands of these were working.

Most of the working women (80%) didn't get enough time for recreational activities and to get with their child.(Table 1) They juggles life, work and home demands every day, had no time to do personal things ("there just isn't enough hours in the day"), and lack of energy/sleep (Belshaw K et al 2004)⁶. To take care of their child 67% of working women had kept care takers, 56% had kept cooks and 96% had engaged housemaids to take care of house hold works. In contrast only 10% of non working women had kept child caretakers, 7% kept cooks and only 20% had kept housemaids for management of household works. (Table 2)

The physical health of children of working and nonworking mothers had no significant difference as assessed by their weight and height measurements. Most of the students had normal (within 2 s. d. of mean) weights (working: 80%, Non working: 82%) and heights (working: 91%, Non working: 83%) for their particular age and sex. None of the

students had weight and height below 3 S.D. of the mean for their age and sex. (Table 3)

The academic performance of children of working mothers was significantly better (chi square value 12.7, degree of freedom 3 and $p < 0.05$) than that of non working. 86% children of working mothers and 93% children of nonworking mothers had score average and above in their previous class. (Table 4) this finding was contradictory to Ermisch J et al (Essex university)⁷, and may be due to the fact that in Indian setting families with better income are able to provide accessory guides and materials, and tuition classes for their children.

87% of working women and 97% of non-working women said their child fall ill less often. But there was significant difference in the children of working and non-working women regarding their tendency to fall ill, chi square test (chi square value 7.45, degree of freedom 2 and $p = 0.024$). Tendency to become ill was more prevalent in children of working mother. 13% of children of working mother were absent for more than five days in class compared to only 3% children of non working mother.(Table 5)

The assessment of psychological behaviour revealed that altered psychological behaviour was more prevalent in children of working mothers compared to non working mothers. 40% children of working mothers scored above 5 in child behaviour checklist for aggressive behaviour (Felton J. Earls Harvard Medical School) compared to only 10% children of non working mothers, and the difference was statistically significant.(table 6, figure 2A&2B) Similarly 50% of the children of working mothers score above 5 in child behaviour

checklist for depression compared to nil cases of children of non working mothers.(table 7, figure 3A&3B)

Thus psychological behaviour gets affected by nature of work, working / non working mother. Rowntree J et al⁸ also found psychological problems in children of full time working women which were lesser in children of part time working mothers.

Conclusion:

Working women lack free time for recreational activities and time to spend with their children. Majority of them had left their children responsibility on the child caretaker, household management responsibility on housemaids and cooks.

There was no significant difference in physical health of children of working and non working mothers but tendency to fall ill was significantly higher in children of non working mothers as evident from absence in their school in past three months. Also the academic performance of children of working mothers was significantly better.

Though children of working mothers were better in academic performance and had lesser tendency to fall ill, they had poor psychosocial behaviour development in terms of higher prevalence of aggressive behaviour and depression, which was significantly higher than in children of non working mothers.

Thus working by mothers help in better health and academic performance of the children, it has negative impact on the psychosocial development of children which can be overcome by giving sufficient time to the children by mothers, support by other family members (grand parents, close

relatives) instead of caretaker, motivation and engaging them in extracurricular activities.

References:

1. Basu, A. M. and K. Basu. 1991. "Women's economic roles and child survival: The case of India", Health Transition Review 1(1): 443-453.
2. Sivakami Muthusamy population Research Centre Institute for Social and Economic Change Bangalore-Are Working Mothers in India Investing Less Time in the Next Generation?
3. Desai, S., P. L. Chase-Lanadale, and R. T. Michael. 1989. "Mother or market? Effects of maternal employment on the intellectual ability of four year old children", Demography 26(4): 545-561.
4. Felton J. Earls (Harvard Medical School) Project on Human Development in Chicago Neighbourhoods (PHDCN):ICPSR 13679 Child Behaviour Checklist, Wave 3, 2000-2002
5. NCHS reference values of weight and height for age from birth to 18 years at monthly intervals Textbook of paediatrics, 5th edition by O.P.Ghai
6. Karen Belshaw, study on Women with 2 full-time jobs, on call 24/7 and how they manage stress, 2004.
7. John Ermisch and Marco Francesconi, professors at Essex University, study on Working mothers 'bad for children'.
8. Joseph Rowntree Foundation, based on over 1,200 young people.(BBC News sources),study on Working mothers' link to school failure.
9. Elizabeth Harvey, a psychologist at the University of Massachusetts at Amherst.(March 1, 1999).
10. Lois Wladis Hoffman,Professor Emerita, Department of Psychology University of Michigan-Ann Arbor,study on The Effects of the Mother's Employment on the Family and the Child.
11. Sandberg, J. F and S. L. Hofferth. 2001. "Changes in children's time with parents: United States, 1081-1997", Demography 38 (3): 423-436.
12. WHO Multicentre Growth Reference Study Group. WHO Child Growth Standards: Length/height-for-age, weight-for-age, weight-for-length, weight-for-height and body mass index-for-age: Methods and development. Geneva: World Health Organization, 2006 (312 pages).
13. Park's Text book of Preventive and Social Medicine 22nd Edition, by K Park

Tables and figures

Figure 1: multistage random sampling

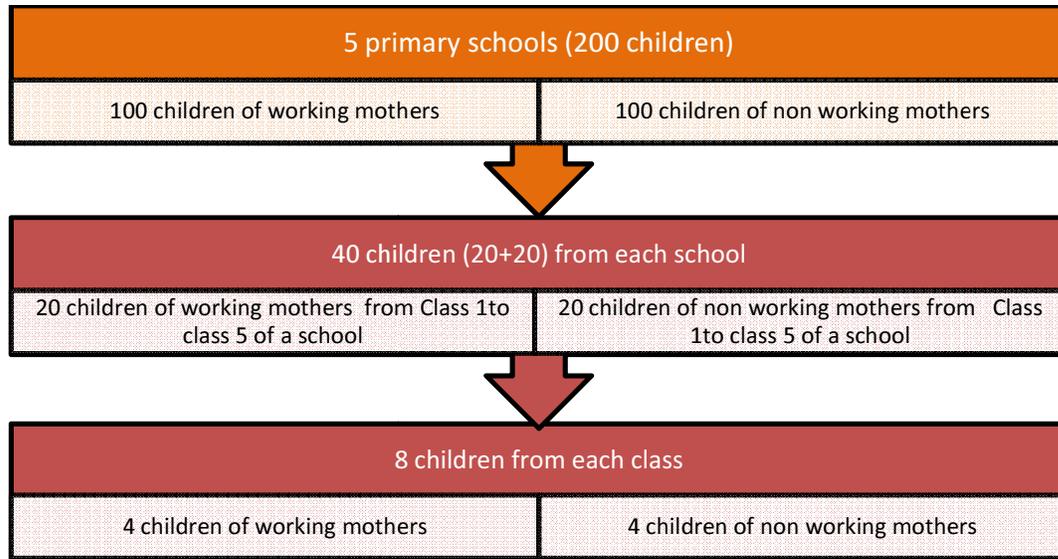


Table 1 Time spent for recreation by working and non-working women

Sr. No.	Time spent for recreation	Working mothers (%)	Non working mothers (%)	Total (%)
1	< 2 Hrs	80	60	140
2	>2 Hrs	20	40	60
Total		100	100	200

Most of the working mothers had shortage of time for recreation activities with their child. 80% had less than 2 hrs for recreation compared to 60% non working mothers. (Chi square p value was less than 0.05 (p=0.002), the difference was found to be significant.

Table 2: Percentage of working and non-working women appointing additional workers for different activities:

*Caretaker for child care				
Sr. No.	Caretaker to take care of child	Working mothers	Non working mothers	Total
1	Yes	67	10	77
2	No	33	90	123
#Cook for food preparation				
1	Maid /cook	56	07	63
2	Self	44	93	137
†Housemaid for household works				
1	Housemaid	94	20	114
2	Self	6	80	86
	Total	100	100	200

*67% of working women had a care taker for their child in contrast, to 10% of non-working women ($\chi^2= 65.369$, $df= 1$, $P<0.001$, difference was statistically significant).

#44% of working women and 93% of non-working women enjoy cooking food themselves (chi square value: 55.637 $DF= 1$ and $P<0.001$, difference was statistically significant).

†Only 6% of working women managed their household works themselves as compared to 80% of the non-working women ($\chi^2=111.710$ $df=1$, $P<0.0001$), difference was statistically significant).

Table 3: Physical growth assessment of children:

*Comparison of Weights of children of working and non-working women:		
Weight of the children	No. of children of working mothers	No. of children of nonworking mothers
Normal	80	82
Under nutrition (Weight – 2 S.D.)	20	18
Severe under nutrition (Weight – 3 S.D.)	Nil	Nil
#Comparison of Heights of children of working and non-working women:		
Normal	91	83
(Height – 2 S.D.)	09	17
Stunted (height – 3 S.D.)	Nil	Nil

Reference: NCHS reference values of weight and height for age from birth to 18 years ⁵

*There was no statistical significant difference in weights of children among the two groups ($\chi^2=0.130$, DF=1, p= 0.7185). 19% of the studied children had moderate malnutrition.

#there was no statistical significant difference in Heights of children among the two groups ($\chi^2=2.829$, DF=1, p= 0.0926).

Table 4: Comparison of children of working and non-working women regarding their academic performance of children (based on the performance in previous class):

Academic performance	No. of children of working mothers	No. of children of nonworking mothers	Total
Score above 70% (good)	26	27	53
Score 61-70% (fair)	34	13	47
Score 51-60% (average)	38	53	91
Score below 50% (poor)	04	07	11
Total	100	100	200

Table 5: Comparison of children of working and non-working women regarding their tendency to fall ill (assessed by no. of days of absence in the class in last three months with application of sickness)

S. No.	No of days of absence with application of sickness	Working mothers	Non working mothers	Total
1	Less than 2 days	69	72	141
2	2-5 days	18	25	43
3	More than 5 days	13	3	16
	Total	100	100	200

Table 6: Irritable and aggressive behaviour based on 10 point scale

Number of children	Irritable and aggressive behaviour.		
	Yes (scored above 5)	No (score less than 5)	Total
Working mothers	40	60	100
Non working mothers	10	90	100
Total	50	150	200

Irritable and aggressive behavior was more common in children of working mothers compared to children of non working mothers, and the difference was **statistically significant**. ($\chi^2=24.000$, DF= 1, p<0.001).

Table 7: Anxious or depressive behaviour⁴ based on 10 point scale

Number of children	Anxiety /depression		
	Yes (scored above 5)	No (score less than 5)	Total
Working mothers	50	50	100
Non working mothers	00	100	100
Total	50	150	200

Anxious or depressive behaviour was more common in children of working mothers compared to children of non working mothers, and the difference was **statistically significant**. ($\chi^2= 64.027$, DF=1, $p<0.001$).

Figure 2A: Irritable and aggressive behaviour⁴

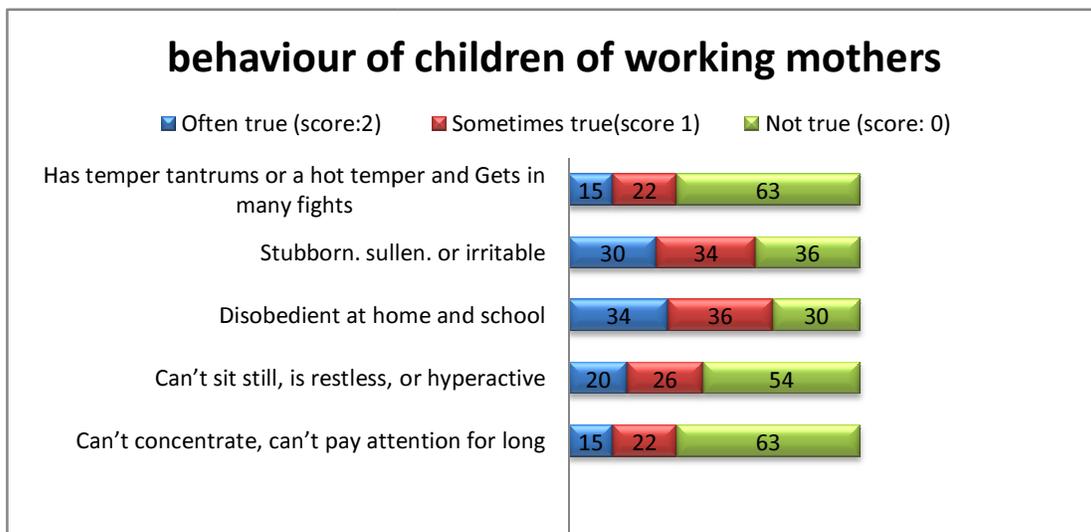


Figure 2B: Irritable and aggressive behaviour⁴

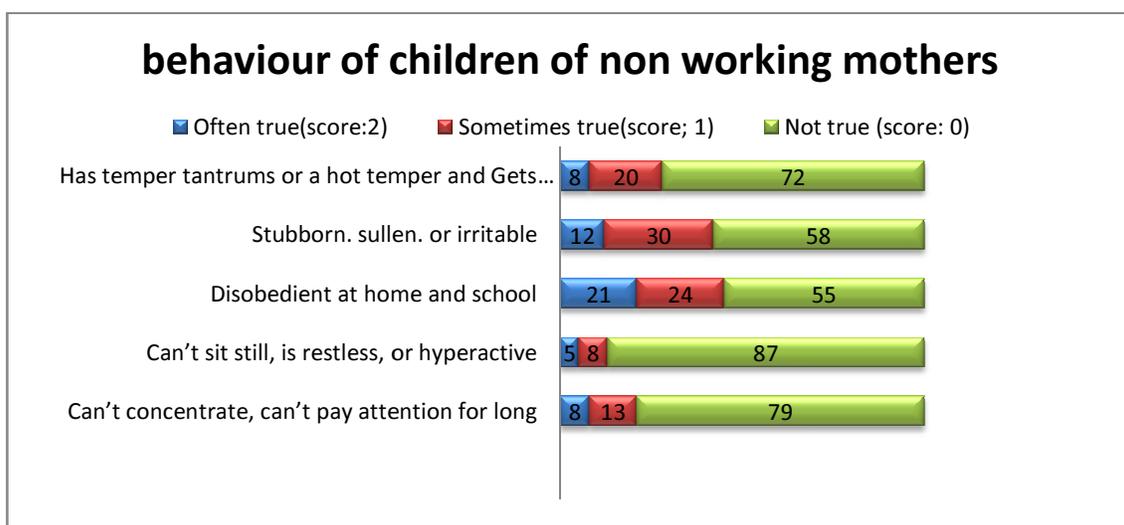


Figure 3A: Assessment of anxious or depressive behaviour⁴

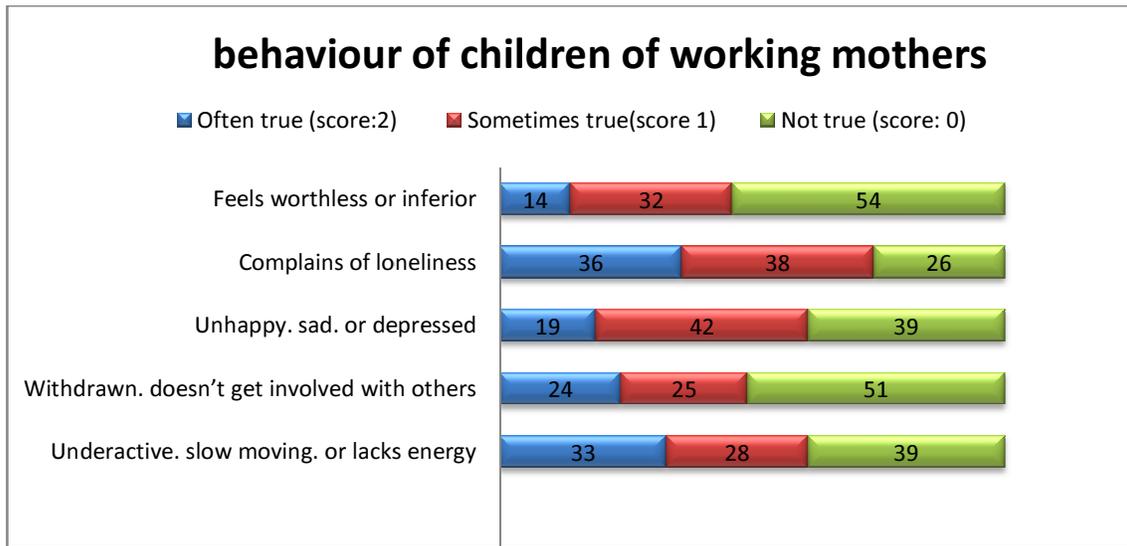
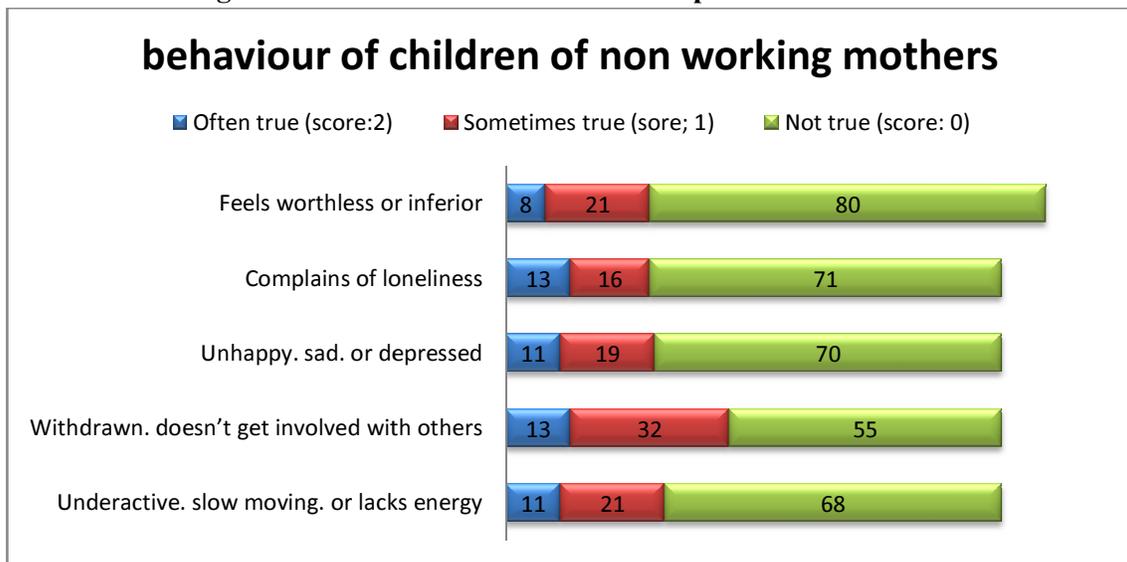


Figure 3B: Assessment of anxious or depressive behaviour⁴



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